result in less attentive driving; (2) smokers may engage in more risk-taking behavior in operating their vehicles; (3) smokers use alcohol and illegal drugs more frequently than nonsmokers; and (4) nicotine or some other constituent of cigarette smoke may impair complex behaviors such as driving (DiFranza et al. 1986). In the industry's view, whether there is a causal link between smoking and motor vehicle accidents is irrelevant; the better safety record of nonsmokers has been shown repeatedly and is the basis for the discounts. Periodic reviews by Farmers' have been kept proprietary but support continuing discounts for nonsmokers (Clemans 1988). Similarly, Hanover Insurance Group's experience—that smokers have a 24-percent higher rate of claims than do nonsmokers—demonstrates that actuarial differences support premium differentials (DiFranza et al. 1986).

The first property and casualty insurer to offer premium discounts to nonsmokers, the Farmers' Insurance Group of Companies, includes the third largest private passenger auto insurer and the third largest homeowner insurer in the United States. Nonsmoking discounts were offered on auto policies beginning in 1971 and on homeowner policies in 1974 (Clemans 1988). This company remains the only 1 of the 10 leading writers of homeowner and private passenger auto insurance to offer discounts to nonsmokers on both types of policies (Wasilewski 1987a,b). Currently Farmers' offers nonsmokers and former smokers who have not smoked for at least 24 months discounts of 3 to 7 percent on homeowner policy base rates and discounts of 10 to 25 percent on auto policies, depending on State of residence.

Other insurers that offer nonsmoker discounts on auto policies include Preferred Risk Group and Hanover Insurance Company (NAIC 1987e). On the basis of its own claims experience, Hanover increased discounts from the original 5 percent, instituted between 1974 and 1978, to the current 10 percent. The company provides the discounts on both auto and homeowner policies nationwide, except in States where regulatory bodies prohibit them. Fifty-two percent of its policyholders have nonsmoker discounts (Weinman 1988).

Factors that have prevented the more widespread industry adoption of nonsmoker discounts on auto and homeowner policies include difficulties in the verification of smoking status and regulations in some States that prohibit nonsmoking discounts or prohibit rescission of benefits in cases of misrepresentation.

Effects of Insurance Premium Differentials on Smoking Behavior

Insurers' use of smoking behavior as a factor in setting premiums may have both economic and educational effects that discourage smoking. Premium differentials may serve as economic disincentives for smoking because they effectively, if indirectly, increase the cost of smoking cigarettes. This may reduce tobacco consumption and encourage cessation. In addition, payment of a higher premium may reinforce smokers' knowledge of the harm caused by smoking and serve as another social message to smokers about the disadvantages of smoking and desirability of cessation. It is less likely that insurance premium differentials will have a strong role in discouraging smoking initiation, because most individuals make decisions about smoking during adolescence, before many purchase insurance.

Empirical studies, reviewed in the previous section, have demonstrated that changes in cigarette prices affect tobacco consumption. Elasticities have been calculated for the effect on demand of changes in the price of cigarettes at the point of purchase, but not for economic policies that indirectly alter a smoker's costs. No empirical studies have examined the effect on smoking prevalence or cigarette consumption of higher insurance premiums for smokers or of reimbursement for the cost of smoking cessation programs. The potential educational effects of premium differentials on public knowledge or attitudes have not been studied; effects will be difficult to distinguish from other social influences discouraging smoking.

The expected effects of excise taxes and premium differentials are not identical, because of inherent differences between buying cigarettes and purchasing insurance. A smoker can respond to higher excise taxes by reducing consumption without giving up smoking, but a smoker can reduce insurance premiums only by stopping smoking altogether. Insurance premium differentials may be less powerful economic incentives than are changes in actual cigarette prices, because higher insurance premiums do not translate directly into an increase in the price of cigarettes at the point of sale. Furthermore, a smoker buys cigarettes far more often then he or she pays insurance premiums. On the other hand, the magnitude of an insurance premium differential is greater than a tax-induced change in the price of a pack of cigarettes.

Other factors may blunt the impact of insurance premium differentials based on smoking behavior. First, smokers may forget or not even know that they are being penalized if there is no reminder of that fact on their insurance bill or payroll receipt. Some life and health insurers may not inform smoking policyholders that they use controllable risk factors when setting premiums. The educational value of the premium differential is largely lost after the policy is issued if periodic reminders of the basis of premium are not sent with the insurance bill. Furthermore, part of the economic incentive is lost if no mechanism exists for smokers who quit smoking after the policy is issued to become eligible for a lower premium. Second, the individual may not pay the full cost of insurance premiums. Health and life insurance is often included in employee benefit packages, with the employee paying only a portion of the total premium. The employee's contributions to the insurance premiums may be small or nonexistent. Third, most health insurance policies are group policies that do not include smoker–nonsmoker differentials. Those that do set premiums based on the smoking prevalence of the group, so that a smoker's higher premium cost is partly borne by nonsmoking members of the group. Finally, because not all insurers offer nonsmoking discounts, even smokers purchasing individual insurance have the option of purchasing insurance from companies that do not tie premiums to smoking behavior.

Health Insurance Coverage for Smoking Cessation Treatment

Insurers who reimburse for the costs of attending a smoking cessation program or of purchasing a cessation aid effectively reduce the cost of quitting smoking, thereby removing a financial disincentive to quit. This reimbursement may also serve as an economic incentive to the provider of the treatment to offer more services, thereby increasing availability of cessation treatment.

Currently, few health insurance carriers cover the costs of smoking cessation programs. Only 11 percent of 263 health insurance carriers surveyed in 1985 included smoking cessation treatment as a covered benefit. Insurers that reimbursed for smoking cessation programs did so only to treat established smoking-related diseases, not to prevent these diseases (Gelb 1985). Among BC/BS plans, smoking cessation is usually not an approved benefit for groups unless it is included as part of a wellness package purchased by the employer (Moore 1988). A similar situation holds for the reimbursement of pharmacologic treatment to promote smoking cessation. Health insurers usually limit reimbursement of drug treatment to drugs that are approved by the Food and Drug Administration (FDA) and are prescribed for treatment of a diagnosed medical illness in a patient who has prescription drug coverage. Currently, nicotine polacrilex gum is the only drug approved by the FDA to aid in smoking cessation. Nevertheless, its prescription is usually not reimbursable for smokers who do not already carry a diagnosis of a smoking-related disease (Moore 1988).

Several barriers impede greater coverage of smoking cessation treatment by health insurers. Traditionally, health insurance has covered the cost of treating, not preventing, illness. A major reason for this was that insurers' were not convinced of the financial feasibility of covering preventive services, however socially desirable such a policy might be. Similarly, insurers have only gradually come to cover the costs of drug and alcohol treatment (American Hospital Association 1987). Smoking cessation programs might be classified as either preventive care or as treatment of substance abuse. Regardless of how it is classified, it appears that insurers are not convinced of the financial feasibility of covering smoking cessation treatment. In part, this stems from a lack of data with which to make appropriate calculations.

To be in the health insurers' economic interests, the cost of a treated smoker (the cost of cessation treatment in addition to other health claims) must be less than the claims paid to a smoker who does not attend a cessation program. This calculation requires the estimation of several factors that have not been well studied, including the difference in annual health care costs of current and former smokers, the costs and success rates of different smoking treatments, the likelihood that a smoker will quit without a program, the length of time that the smoker remains insured by the same insurer, and the discount rate at which future costs are evaluated. Furthermore, because health insurance is usually provided by employers, and employees change jobs, it is possible that the health insurer who pays for a policyholder's smoking cessation may not reap the benefits of any reduced health care costs that individual experiences.

Even if reimbursement for smoking cessation treatment were shown to be financially advantageous for insurers, practical problems would remain to slow the implementation of reimbursement. For example, insurers would have to define which programs, drugs, or other aids would be covered and which providers would be reimbursed.

Summary

The Public Health Service's 1990 Health Objectives for the Nation include two goals for smoking and insurance:

1. By 1985, the collection and publication by insurers of actuarial experience on differential life experience and hospital utilization by specific cause among smokers and nonsmokers, by sex;

2. By 1990, differential insurance premiums for smokers and nonsmokers by major life and health insurers (US DHHS 1981b, 1986d).

Progress has been made toward meeting both of these goals. The actuarial basis for life insurance premium differentials has been established, and data are beginning to be collected on hospitalization rates (US DHHS 1986d). However, more information on the total health care costs of smokers and nonsmokers, including ambulatory care, would help to establish a firmer rationale for offering premium discounts for health and disability insurance and for covering the costs of smoking cessation treatment. The second objective has been partially met. Although nearly all life insurers offer nonsmoker discounts, only a minority of health insurers do. This is partly because, unlike life insurance, most health insurance is sold to groups, which, as discussed above, presents greater operational obstacles to the development and implementation of nonsmoker discounts.

Much of the accomplishment to date is a result of the insurance industry's voluntary initiatives, which seem likely to continue (Walsh and Gordon 1986). Collection and publication of claims experience by industry groups such as the Society of Actuaries are steps that could be taken to increase the use of smoker–nonsmoker premium differentials in health and disability insurance. State and Federal governments have the opportunity to act as facilitators and educators to encourage insurers—especially health insurers—to offer premium discounts to nonsmokers and to reimburse for smoking cessation treatment. Government officials at both levels could act to remove those legal barriers that prevent insurers from adopting nonsmoker discounts and to disseminate research findings that support these discounts and coverage for smoking cessation. HMOs may be more likely to use smoking status as a factor in setting premiums if current Federal restrictions preventing it, except on a case-by-case basis, are removed.

Although the insurance industry is State regulated, regulation has generally been limited to ensuring the financial integrity of insurers. Some have suggested that a State-regulated industry could be subject to other controls in the public interest (Hiam 1987/88). Since the 1960s, all States have mandated certain types of coverage that insurers must provide as a condition of doing business in the State (Glantz 1985). State health insurance commissioners or legislatures could require smoker–nonsmoker premium differentials as a condition for writing policies within their States. In several States, bills have been filed that would mandate insurance premium differentials, although none have been enacted (CDC 1980, 1981). The few remaining life insurers without premium differentials might be encouraged to adopt them if the NAIC model rule regarding smoker–nonsmoker mortality tables were adopted by legislatures and insurance commissioners in the States that have not yet done so (NAIC 1985b).

Publicly funded health insurance such as medicare and medicaid is more directly amenable to government action. Measures have been introduced into Congress that would restructure medicare premiums to offer discounts to nonsmokers and to cover preventive care, including smoking cessation treatments (past bills include S. 357 and S. 358 in 1985). In the preface to the 1988 Surgeon General's Report (US DHHS 1988),

the Surgeon General stated, "Treatment of tobacco addiction should be more widely available and should be considered at least as favorably by third-party payors as treatment of alcoholism and illicit drug addiction." Research to establish the cost-effectiveness of preventive care coverage by insurers, especially for smoking cessation, would be useful in reaching that goal.

PART III. DIRECT RESTRICTIONS ON SMOKING

The policies discussed so far discourage tobacco use indirectly, either by educating the public about the health hazards or by creating economic disincentives to smoke. A third category of public policies acts more directly; their aim is to reduce smoking by limiting either public access to tobacco products or the opportunity to use them. The most extreme potential policy in this category would be a total ban on the sale, possession, or use of tobacco products, analogous to current statutes on such other addictive drugs as heroin or cocaine. Short of that are policies that restrict or ban smoking in specific places, such as indoor public places and workplaces, prohibit the sale of tobacco products in particular places, or prohibit the use of tobacco by a particular group of individuals, namely minors.

Tobacco occupies a position unlike that of any other consumer product (or pharmaceutical agent) in the United States; it was widely used, socially accepted, and economically vital to strong agricultural and manufacturing interests long before its adverse health effects and addictive potential were appreciated. These facts have made the most stringent regulatory option—total ban on sale or use—impractical and undesirable. Such a policy did exist in some States in the early part of this century, when a moral crusade against cigarettes like that against alcohol led to the passage of laws in a dozen States banning the sale of tobacco products (Walsh and Gordon 1986). These laws proved difficult to enforce and were all repealed by 1927.

Although a total prohibition on tobacco is unlikely, there is a long tradition of restricting children's and adolescents' access to tobacco. According to established social convention, the rational use of certain products, like tobacco, alcohol, or the material sold in adult bookstores, requires an informed decision that minors are deemed to be too young to make. The growing awareness of the addictive nature of nicotine (US DHHS 1988) strengthens that convention in the case of tobacco products. Policies limiting smoking in public places or workplaces have a different rationale; they restrict the smoker's behavior for the sake of the nonsmoker. Although the primary aim of these policies is to protect the nonsmoker from the health consequences of involuntary tobacco smoke exposure, they may have the side effect of discouraging tobacco use by reducing opportunities to smoke and changing public attitudes about the social acceptability of smoking.

The direct restrictions discussed so far address the consumer (smoker or potential smoker). Policies directed at tobacco manufacturers include regulations on the contents of tobacco products to reduce their harmfulness. Such policies have the inherent difficulty of defining an acceptable level of tobacco or smoke exposure because, as documented in Chapter 2, there is no known safe level of tobacco use.

This Section considers three types of policies that put direct restrictions on smoking or tobacco products. First, it examines policies that restrict smoking in public places and workplaces, including both government actions and policies initiated in the private sector. Second, policies that would restrict minors' access to tobacco products are discussed. Finally, the Section considers the treatment of tobacco products by Federal regulatory agencies.

Government Actions to Restrict Smoking in Public Places and Workplaces

In 1986, the Surgeon General's Report documented "a wave of social action regulating tobacco smoking in public places" (US DHHS 1986b) that was then occurring. It reviewed public and private policies designed to protect individuals from environmental tobacco smoke (ETS) exposure by regulating the circumstances in which smoking is permitted. Since the 1986 Report, the pace of action appears to have increased in both the public and private sectors. Restrictions on smoking in public places are the result of government actions at the Federal, State, and local levels, particularly State and local legislation. The Federal Government has largely acted via regulatory mechanisms and has addressed smoking in Federal facilities and in public transportation. The major exception is recent congressional legislation restricting smoking on commercial airliners. Accompanying government actions are a wide range of private initiatives; these have become widespread in this decade. Smoking restrictions in the workplace are the most common private sector action, but hospitals, schools, hotels and motels, and other institutions are also adopting no-smoking policies. This trend reflects two forces: a growing scientific consensus about the health risks of involuntary smoking (US DHHS 1986b; NAS 1986b) and changing public attitudes about the social acceptability of smoking. As documented in Chapter 4, a growing majority of Americans now supports the right of nonsmokers to breathe smoke-free air and favors restricting smoking in public places and the workplace.

This Section addresses the scope and impact of government actions to restrict smoking in public places and workplaces. Private initiatives to regulate smoking are discussed in the subsequent section. Both sections summarize and update the findings of Chapter 6 of the 1986 Surgeon General's Report.

Smoking Restrictions in Public Places

A public place has usually been defined as any enclosed area to which the public is invited or in which the public is permitted (Americans for Nonsmokers' Rights (ANR) 1987a, b). This broad definition encompasses a diverse range of facilities that share the characteristic of being indoor enclosed spaces that permit the general public relatively free access. Beyond this general agreement, laws and regulations differ in their operational definition of public place. They even differ in the degree to which the concept is specified. Public place is commonly interpreted to include government buildings, banks, schools, health care facilities, public transportation vehicles and terminals, retail stores and service establishments, theaters, auditoriums, sports arenas, reception areas, and waiting rooms. Although they fit the definition, restaurants are usually

treated separately in these laws. Private businesses are also separately addressed, and private homes specifically excluded.

As noted in the 1986 Surgeon General's Report, the degree to which smoking is restricted in public places also depends on history or tradition, the level of involuntary smoke exposure that is likely (determined by size, ventilation, and amount of smoking), the ease with which smokers and nonsmokers can be separated, and the degree of inconvenience that smoking restrictions pose to smokers. Public places may be owned by government or private interests. As a consequence of these factors and others, there is considerable variability in the methods by which new regulations have been proposed and the ease with which they have been adopted. Smoking restrictions have been most easily adopted in public facilities, especially facilities where smoking has traditionally been prohibited for safety reasons, where smoking is not associated with the activity taking place, and where the public spends limited time. Such considerations explain the relatively slower acceptance of smoking restrictions in restaurants, bars, and private businesses (US DHHS 1986b).

Federal Actions

Until recently, actions at the State and local Government level— primarily legislation—accounted for the bulk of smoking regulations in public places. Since 1986, the Federal Government has taken new steps, including the first congressional actions (covered below), to restrict smoking in two categories of public places: transportation facilities and Government worksites. The Federal Government has enacted no restrictions on smoking that apply to a broad range of nongovernmental public places.

State Legislation

Although the health hazards of smoking were not widely appreciated until the 1960s, the fire hazard was recognized much earlier, giving rise to the first State laws regulating smoking. For nearly a century cigarette smoking has been regulated by State law to prevent fires and prevent the contamination of food being prepared or packaged for public consumption. This was the extent of State law in 1964, when the first Surgeon General's Report was issued. At that time, 19 States prohibited smoking near explosives or fireworks, in or near mines, or near hazardous fire areas. Five States banned smoking in food processing factories or restaurant preparation areas (US DHHS 1986e; BNA 1987). These laws affected only a small proportion of the population and did not alter smoking in public places.

In addition, by 1964, 13 States had adopted some restrictions on smoking in specific public places. This legislation, also enacted to prevent fires, had some potential to reduce smoking in public places, even though that was not its primary intent. Six States permitted employers to ban smoking in mills and factories as long as signs were posted, and six States restricted smoking in public transportation vehicles or terminals or in auditoriums and theaters. The remaining laws sought to discourage smoking by children: three States prohibited smoking (at least by minors) on school grounds, buildings, or buses (US DHHS 1986b; BNA 1987). This remained the basic extent of smok-

ing restrictions through the 1960s as the health hazards of smoking became widely known.

In the 1970s, a new form of smoking legislation emerged, differing in both intent and content. The specific rationale behind this legislation was the safety and comfort of nonsmokers, reflecting growing interest and, later, scientific evidence of the health hazards of passive smoke exposure (US DHHS 1986b; BNA 1987). These Clean Indoor Air Acts regulated smoking in a larger number of places and for the first time mandated smoking restrictions in private facilities. Over time, the language of the laws became more restrictive, first permitting, then requiring nonsmoking sections, then making nonsmoking the principal condition, with an option for smoking areas. The legislation was developed and promoted by the growing nonsmokers' rights movement, for the most part a grassroots movement consisting of Californians for Nonsmokers' Rights (later changed to Americans for Nonsmokers' Rights) and a number of other State and local groups, many using the name Group Against Smoking Pollution (GASP). These organizations focused their attention on achieving legislative goals at the State and local levels (see Chapter 6). In doing so, they sometimes worked in conjunction with the voluntary health organizations.

The prevalence and content of State legislation on smoking changed dramatically over the ensuing two decades (Figure 6). Current smoking restrictions in public places are largely the product of legislation enacted at the State level beginning in the early 1970s (Tables 18 and 19). Between 1970 and 1979, smoking restrictions were enacted by legislatures in 24 additional States; in 7 others, existing restrictions were extended. In 1975 alone, 13 States enacted laws, more than double the number that had done so in the previous decade (1964–74).

Not only the quantity but also the content of these laws was different. In 1973, Arizona became the first State to restrict smoking in a number of public places, and the first to do so explicitly because smoking was a public health hazard. Although not comprehensive by current standards, the law was regarded as comprehensive when passed. The first State law to include smoking restrictions in restaurants was passed in Connecticut in 1974. Coverage of worksite smoking also began at this time with the landmark Minnesota Clean Indoor Air Act. Passed in 1975, it extended smoking restrictions to many public places, restaurants, and both public and private worksites. It became the model for other comprehensive State legislation that began to be passed in the mid-1970s.

After a relative lull in the early 1980s, there was another notable increase in passage of State laws in the middle of the decade, probably reflecting greater scientific consensus about the health consequences of involuntary smoking. By the end of 1985, 41 States and the District of Columbia had passed laws regulating smoking in at least one public place (US DHHS 1986b). In 1987, the year after two national groups separately reviewed the evidence on passive smoking and reached similar conclusions about its health effects (US DHHS 1986b; NRC 1986b), 20 States passed legislation regulating smoking, more than ever before in a single year. Moreover, the legislation being passed grew more comprehensive in its coverage. From the start of 1985 to the end of the 1987 legislative sessions, there was a doubling in the number of States restricting smoking

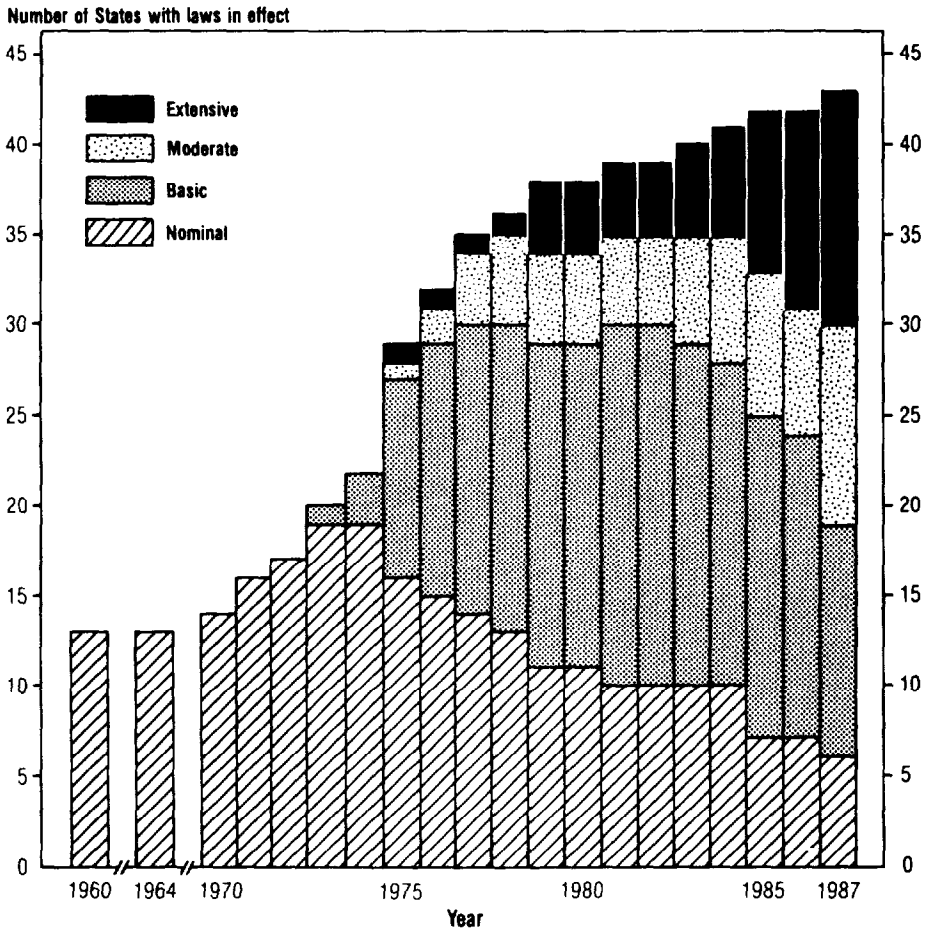

FIGURE 6.—Prevalence and restrictiveness of State laws regulating smoking in public places, 1960–1987

NOTE: Index of restrictiveness: 0 = none, no statewide restrictions; 0.25 = nominal, State regulates smoking in one to three public places, excluding restaurants and private worksites; 0.50 = basic, State regulates smoking in four or more public places, excluding restaurants and private worksites; 0.75 = moderate, State regulates smoking in restaurants but not private worksites; 1.00 = extensive, State regulates smoking in private worksites.

SOURCE: US DHHS (1986b); unpublished data, OSH.

TABLE 18.—State laws restricting smoking, 1964–87

Year	Number of States enacting laws	Cumulative number of States with laws	Number of States restricting smoking in restaurants		Number of States restricting smoking in private worksites		Number of States restricting smoking in public worksites	
			Enacting/cumulative		Enacting/cumulative		Enacting/cumulative	
1964	0	13						
1965–66	0	13						
1967–68	2	14						
1969–70	0	14						
1971	2	16						
1972	1	17						
1973	3	20						
1974	3	22	1	1				
1975	13	29	2	3	1	1	4	4
1976	5	32	3	6	1	2	1	5
1977	6	35	2	7	0	2	3	8
1978	2	36	1	8	0	2	1	9
1979	6	38	2	10	2	4	2	11
1980	1	38	0	10	0	4	0	11
1981	7	39	1	11	0	4	3	13
1982	1	39	0	11	0	4	0	13
1983	4	40	1	12	1	5	2	15
1984	3	41	1	12	0	5	2	15
1985	9	42	4	16	4	9	5	20
1986	6	42	1	16	3	11	4	22
1987	20	43 (84%[a])	10	23 (45%)	4	13 (25%)	15	31 (61%)

NOTE: Includes the District of Columbia.

[a]Percentage of total States.

SOURCE: BNA (1987); US DHHS (1986b); individual State laws.

in private workplaces (from 4 to 13), public workplaces (15 to 31), and restaurants (10 to 23) (Table 18).

Recently adopted laws are more likely to include three provisions that strengthen the position of nonsmokers: (1) protection against discrimination for supporters of worksite smoking policies, (2) priority to the wishes of nonsmokers in any disagreement about the designation of an area as smoking or nonsmoking, and (3) permission for cities and counties to enact more stringent ordinances. In 1985, Maine was the first of five States to adopt a nondiscrimination provision, which makes it illegal for employers to discipline, discharge, or otherwise discriminate against employees who assist in the implementation of nonsmoking policies (BNA 1987). The second provision first appeared

TABLE 19.—State laws regulating smoking in public places and worksites, through October 1, 1988

	AL	AK	AZ	AR	CA	CO	CT
YEAR(S) LEGISLATION ENACTED		1975 1984	1973, 81 1986, 87	1977 1985, 87	1971, 76 1980, 81 1982, 87[a]	1977 1985[a]	1973, 74 1983, 87
PUBLIC PLACES WHERE SMOKING IS RESTRICTED							
Public transportation[b]		X	X	X	X[c]	X	X
Elevators		X[c]	X			X	X[c]
Indoor cultural or recreational facilities		X	X		X	X	
Retail stores[d]		X			X		X
Restaurants[e]		X			X	X	X
Schools		X	X	X	X	X	X
Hospitals		X	X	X	X	X	X
Nursing homes		X	X		X		X
Government buildings		X	X		X	X	X
Public meeting rooms		X			X		X
Libraries		X					
Other[f]		X	X	X			
WORKSITE SMOKING RESTRICTIONS[g h]							
Public worksites		D	B,D	B,D	B	C,D[a]	C
Private worksites		A					C
IMPLEMENTATION PROVISIONS							
Nonsmokers prevail in disputes			X				
No discrimination against nonsmokers			X				
ENFORCEMENT (PENALTIES)							
Against smokers[i]		X	X	X	X		X
For failure to post signs[j]		X					X
LOCAL ORDINANCES							
Specifically allowed					X	X	
Specifically preempted							
OVERALL RESTRICTIVENESS OF STATE LAW[k]	0	3	2	2	3	2	4

TABLE 19.—Continued

	DE	DC	FL	GA	HI	ID	IL
YEAR(S) LEGISLATION ENACTED	1960	1975, 79 1988	1974, 83 1985	1975	1976, 87	1975, 85	
PUBLIC PLACES WHERE SMOKING IS RESTRICTED							
Public transportation[b]	X	X	X[c]	X[c]		X	
Elevators		X	X[c]	X[c]	X	X	
Indoor cultural or recreational facilities			X		X	X	
Retail stores[d]		X	X		X	X	
Restaurants[e]		X	X		X	X	
Schools		X	X			X	
Hospitals		X	X		X	X	
Nursing homes		X	X		X	X	
Government buildings		X	X			X	
Public meeting rooms		X	X		X	X	
Libraries			X		X		
Other[f]			X				
WORKSITE SMOKING RESTRICTIONS[g h]							
Public worksites			B,D		B,D	D	
Private worksites			B,D				
IMPLEMENTATION PROVISIONS							
Nonsmokers prevail in disputes							
No discrimination against nonsmokers							
ENFORCEMENT (PENALTIES)							
Against smokers[i]	X	X	X	X	X	X	
For failure to post signs[j]		X	X		X		
LOCAL ORDINANCES							
Specifically allowed					X		
Specifically preempted			X				
OVERALL RESTRICTIVENESS OF STATE LAW[k]	1	3	4	1	3	3	0

TABLE 19.—Continued

	IN	IA	KS	KY	LA	ME	MD
YEAR(S) LEGISLATION ENACTED	1987	1978, 87	1975, 87 1988	1972		1954, 81 1983, 85 1987, 88	1957, 75 1987[a] 1988
PUBLIC PLACES WHERE SMOKING IS RESTRICTED							
Public transportation[b]		X	X[c]				X
Elevators		X	X[c]				X
Indoor cultural or recreational facilities		X	X			X	
Retail stores[d]		X	X			X	X
Restaurants[e]		X	X			X	
Schools	X	X	X	X		X	
Hospitals	X	X	X			X	X
Nursing homes	X	X	X			X	X
Government buildings	X	X	X			X	X[a]
Public meeting rooms	X	X	X			X	
Libraries	X	X	X				
Other[f]						X	
WORKSITE SMOKING RESTRICTIONS[g h]							
Public worksites	C,D	D	C,D			B,D	B[a]
Private worksites		D				B,D	
IMPLEMENTATION PROVISIONS							
Nonsmokers prevail in disputes							X
No discrimination against nonsmokers						X	
ENFORCEMENT (PENALTIES)							
Against smokers[i]	X	X	X	X		X	X
For failure to post signs[j]		X	X			X	
LOCAL ORDINANCES							
Specifically allowed	X		X				
Specifically preempted							
OVERALL RESTRICTIVENESS OF STATE LAW[k]	2	4	3	1	0	4	2

TABLE 19.—Continued

	MA	MI	MN	MS	MO	MT	NE
YEAR(S) LEGISLATION ENACTED	1947, 75 1987, 88	1967, 68 1978, 81 1986, 87 1988	1971, 75 1987	1942		1979	1979 1986
PUBLIC PLACES WHERE SMOKING IS RESTRICTED							
Public transportation[b]	X[c]	X	X	X		X	X
Elevators	X[c]	X	X			X[c]	X
Indoor cultural or recreational facilities	X	X	X			X	X
Retail stores[d]	X	X	X			X	X
Restaurants[e]	X	X	X			X	X
Schools	X	X	X			X	
Hospitals	X	X	X			X	X
Nursing homes	X	X	X			X	X
Government buildings	X	X	X			X	X
Public meeting rooms	X	X	X			X	X
Libraries	X		X				X
Other[f]	X	X	X				
WORKSITE SMOKING RESTRICTIONS[g h]							
Public worksites	C,D[a]	D	C,D			D	D
Private worksites			C,D			D	D
IMPLEMENTATION PROVISIONS							
Nonsmokers prevail in disputes			X				X
No discrimination against nonsmokers							
ENFORCEMENT (PENALTIES)							
Against smokers[i]	X	X	X	X			X
For failure to post signs[j]		X				X	
LOCAL ORDINANCES							
Specifically allowed							
Specifically preempted							
OVERALL RESTRICTIVENESS OF STATE LAW[k]	3	3	4	1	0	4	4

TABLE 19.—Continued

	NV	NH	NJ	NM	NY	NC	ND
YEAR(S) LEGISLATION ENACTED	1911, 75 1979 1987	1981 1986 1987	1953 1979 1985	1985	1921, 53 1975 1976		1977 1987
PUBLIC PLACES WHERE SMOKING IS RESTRICTED							
Public transportation[b]	X	X	X		X		X
Elevators	X	X	X	X			X
Indoor cultural or recreational facilities	X	X	X		X		X
Retail stores[d]	X	X	X				
Restaurants[e]	X	X	X				X
Schools	X	X	X				X
Hospitals	X	X	X				X
Nursing homes	X	X	X				X
Government buildings	X	X	X	X			X
Public meeting rooms	X	X	X	X			X
Libraries	X	X	X	X	X		X
Other[f]	X	X			X		
WORKSITE SMOKING RESTRICTIONS[g h]							
Public worksites		D	B,C	C,D			C,D
Private worksites	A	B	B,C		A		
IMPLEMENTATION PROVISIONS							
Nonsmokers prevail in disputes			X				
No discrimination against nonsmokers							
ENFORCEMENT (PENALTIES)							
Against smokers[i]	X	X	X	X	X		X
For failure to post signs[j]		X	X				X
LOCAL ORDINANCES							
Specifically allowed							
Specifically preempted			X				
OVERALL RESTRICTIVENESS OF STATE LAW[k]	3	4	4	2	2	0	3

TABLE 19.—Continued

	OH	OK	OR	PA	RI	SC	SD
YEAR(S) LEGISLATION ENACTED	1953, 81 1981, 84 1988	1975 1987	1973, 75 1977 1981	1927 1947 1977	1976 1977 1986	1937	1974 1987
PUBLIC PLACES WHERE SMOKING IS RESTRICTED							
Public transportation[b]	X	X	X[a]		X	X	X
Elevators	X	X	X		X		X
Indoor cultural or recreational facilities	X	X	X	X	X		X
Retail stores[d]			X	X	X		
Restaurants[e]		X	X		X		
Schools	X	X	X		X		X
Hospitals	X	X	X	X	X		X
Nursing homes	X	X	X	X	X		X
Government buildings	X	X	X		X		
Public meeting rooms	X	X	X				
Libraries		X			X		X
Other[f]	X		X		X		X
WORKSITE SMOKING RESTRICTIONS[g h]							
Public worksites	D	C,D	D		B		
Private worksites					B		
IMPLEMENTATION PROVISIONS							
Nonsmokers prevail in disputes		X			X		
No discrimination against nonsmokers					X		
ENFORCEMENT (PENALTIES)							
Against smokers[i]	X	X	X	X	X		X
For failure to post signs[j]			X		X		
LOCAL ORDINANCES							
Specifically allowed							
Specifically preempted		X					
OVERALL RESTRICTIVENESS OF STATE LAW[k]	2	3	3	2	4	1	2

TABLE 19.—Continued

	TN	TX	UT	VT	VA	WA	WV
YEAR(S) LEGISLATION ENACTED		1975 1987	1976 1979 1986	1892 1987		1984 1985	1913 1919 1985
PUBLIC PLACES WHERE SMOKING IS RESTRICTED							
Public transportation[b]		X	X			X[c]	X
Elevators		X	X	X[c]		X[c]	
Indoor cultural or recreational facilities		X	X			X[c]	
Retail stores[d]			X			X[c]	
Restaurants[e]			X			X	
Schools		X	X			X[c]	X
Hospitals		X	X			X	
Nursing homes		X	X	X		X	
Government buildings			X			X	
Public meeting rooms		X	X	X[c]		X[c]	
Libraries			X			X	
Other[f]				X			X
WORKSITE SMOKING RESTRICTIONS[g h]							
Public worksites			D	B,D		D	
Private worksites			D	B,D		D	A
IMPLEMENTATION PROVISIONS							
Nonsmokers prevail in disputes			X				
No discrimination against nonsmokers			X	X			
ENFORCEMENT (PENALTIES)							
Against smokers[i]		X	X	X		X	X
For failure to post signs[j]				X		X	
LOCAL ORDINANCES							
Specifically allowed			X				
Specifically preempted							
OVERALL RESTRICTIVENESS OF STATE LAW[k]	0	2	4	4	0	4	1

TABLE 19.—Continued

	WI	WY	TOTAL STATES N	%
YEAR(S) LEGISLATION ENACTED	1983			
PUBLIC PLACES WHERE SMOKING IS RESTRICTED				
Public transportation[b]	X		36	70.6
Elevators	X		32	62.7
Indoor cultural or recreational facilities	X		30	58.8
Retail stores[d]	X		25	49.0
Restaurants[e]	X		24	47.1
Schools	X		32	62.7
Hospitals	X		34	66.7
Nursing homes	X		32	62.7
Government buildings	X		31	60.8
Public meeting rooms			27	52.9
Libraries			21	41.1
Other[f]				
WORKSITE SMOKING RESTRICTIONS[g h]				
Public worksites	D		31	60.8
Private worksites			13	25.5
IMPLEMENTATION PROVISIONS				
Nonsmokers prevail in disputes			8	15.7
No discrimination against nonsmokers			5	9.8
ENFORCEMENT (PENALTIES)				
Against smokers[i]	X		40	78.4
For failure to post signs[j]			17	33.3
TOTAL			41	80.4
LOCAL ORDINANCES				
Specifically allowed	X		7	13.7
Specifically preempted			3	5.9
OVERALL RESTRICTIVENESS OF STATE LAW[k]	3	0		

TABLE 19.—Continued

NOTE: Laws cited do not include restrictions on smoking near explosives, fireworks, or hazardous areas; in or near mines; or in food preparation or handling areas of restaurants or food processing factories.
[a]Executive order.
[b]In school buses only in AR, FL, and SC. Smoking is prohibited on all forms of intrastate transportation in CA.
[c]Smoking is never permitted in this area.
[d]Proprietors of retail stores in CO are encouraged to establish no-smoking areas. Smoking is prohibited only in grocery stores in AK, CA, CT, MA, NV, and RI.
[e]Proprietors of restaurants in NJ and CO are encouraged to establish no-smoking areas. In AK, FL, HI, MI, NH, OK, RI, and WI, restaurants seating 50 or more persons must have a no-smoking section. In CA, restaurants in a publicly owned building seating 50 or more must have a no-smoking section. In CT and MA, restaurants seating 75 or more must have a no-smoking section.
[f]Smoking is restricted in jury rooms in AK, FL, ME, MA, MI, MN, OR, and SD; in day care centers in AK, AZ, AR, MA, and MN; in mills, factories, barns, or stables in ME, MA, NV, RI, VT, and WV; in polling places in NH and NY; in prisons, at the prison officials' discretion, in FL and PA; and in the asbestos hazard abatement project in OH.
[g]A, employer must post a sign where smoking is prohibited; B, employer must have a written smoking policy; C, employer must have a policy that provides for a nonsmoking area; D, no smoking except in designated areas. Only B, C, and D count as having a worksite policy in calculation of totals.
[h]Employers must post signs designating smoking and no-smoking areas in AK, MI, MN, NE, NJ, and UT public worksites, and in MN, NE, NJ, and UT private worksites; in smoking areas only in FL, ND, and WI public worksites; and in no-smoking areas in NH and NM public worksites. Depending upon their policy, employers must post either smoking or no-smoking signs in MT public and private worksites. Smoking is not restricted in factories, warehouses, and similar worksites not usually frequented by the public in MN and NE. Smoking is prohibited in any mill or factory in which a no-smoking sign is posted in NV, NY, VT, and WV.
[i]Persons who smoke in a prohibited area are subject to the following maximum fines: $5, AK, KY, VT; $10, IA, OR, PA; $20–25, CT, DE, HI, KS, NM, WI; $50, ID, ME, NH; $100, AR, CA, DC, GA, NE, NV, NY, ND, OK, RI, WV; $100 per day, WA; $200, NJ; $300, MD; $500, FL, MI; $50 or up to 10 days jail or both, MA; minor misdemeanor, OH; petty misdemeanor, MN; misdemeanor, MS, TX; petty offense, AZ, SD; infraction, IN, UT.
[j]Persons who are required to and fail to post smoking and/or no-smoking signs are subject to the following maximum fines: $10, IA; $20–25, MT; $50, KS, NH; $100, ME, ND, OR, VT; $200, NJ; $300, AK, DC; $500, FL, MI; $500 per day, HI, RI; civil action, WA; infraction, CT.
[k]Restrictiveness key: 0, none (no statewide restrictions); 1, nominal (State regulates smoking in 1–3 public places, excluding restaurants and private worksites); 2, basic (State regulates smoking in 4 or more public places, excluding restaurants and private worksites); 3, moderate (State regulates smoking in restaurants but not private worksites); 4, extensive (State regulates smoking in private worksites).
SOURCE: BNA (1987); Tobacco-Free America Project 1987, 1988a, b; US DHHS (1986b); individual State laws.

in the Minnesota Clean Indoor Act (1975) and is incorporated into statutory language in six other States. Seven States include the third provision, which specifically permits local governments to enact ordinances more stringent than the State law (BNA 1987). Conversely, following intense legislative debate that included heavy lobbying by the tobacco industry, Florida (1985) enacted a State law that preempted more stringent local laws, as have Oklahoma (1987) and New Jersey (BNA 1987). Similar legislation has been proposed in other States.

By the end of 1987, smoking was restricted in at least 1 public place in 42 States and the District of Columbia. Table 19 summarizes the provisions of these laws, which most often restrict smoking in public transportation facilities (36 States), hospitals (34 States), schools (32 States), elevators (32 States), government buildings (31 States), and recreational facilities (30 States). As of January 1988, over 82 percent of the United States population resided in States that restricted smoking in at least one public place; this compares with a previous estimate of 8 percent in 1971 (US DHHS 1986b). Over

17 percent of Americans lived in States with laws requiring smoking restrictions at the worksite for nongovernment workers, whereas over half lived in States with such restrictions for State government employees. More than 40 percent of Americans live in States requiring no-smoking areas in restaurants, and two-thirds live in States that limit smoking in health care facilities.

The 1986 Surgeon General's Report documented geographical variation in State smoking laws. Southern States had fewer and less comprehensive laws. This remains true (Table 20). Excluding the major tobacco-producing States (North Carolina, Kentucky, South Carolina, Virginia, Tennessee, and Georgia), over 80 percent of States in each region, including the South, have enacted smoking restrictions. Of the major tobacco-growing States, only Georgia, which ranked sixth in production, had enacted restrictions on smoking in any public places other than school facilities or vehicles.

State laws also vary in their implementation and enforcement provisions. Health departments are responsible for policy implementation in most States (US DHHS 1986b). Nearly all States with laws (40 of 43) provide penalties for smokers who violate restrictions (Table 19). Seventeen States also have penalties for employers and proprietors who do not establish nonsmoking policies or post signs as required (BNA 1987). It is not known how often these penalties are actually imposed.

Local Legislation

As noted in the 1986 Report, efforts to pass Clean Indoor Air Laws spread from the State to the local level in the 1980s, spearheaded by actions in California (US DHHS 1986b). Local ordinances generally extend the scope of smoking restrictions beyond that provided for in corresponding State laws. Usually they include provisions to restrict or ban smoking in restaurants and public and private worksites, in addition to a broad range of public places. An accurate record of local ordinances nationwide is difficult to obtain because there is no single reference library for local legislation. Recently, two organizations have monitored local no-smoking ordinances on a nationwide basis. Their data indicate that local ordinances are being enacted at a rapid pace. As of August 1988, ANR (1988b) identified 321 local ordinances with provisions for significant nonsmoker protection. The Tobacco-Free America Project (1988c) reported in October 1988 that 380 local communities had passed laws restricting smoking in public places. These numbers represent a nearly fourfold increase in the estimate of 89 communities with smoking ordinances in 1986 (US DHHS 1986b).

The most complete information on the prevalence and content of local ordinances is available for California, where ANR has kept an ongoing compilation of laws (ANR 1988a). According to their records, the first local ordinances were passed in 1979. In 1982, San Diego became the first large California city to enact a workplace ordinance. Although not the first local action to include the private workplace, the passage of San Francisco's worksite smoking ordinance in 1983, in the face of heavily subsidized tobacco industry opposition, attracted widespread publicity and stimulated further action (US DHHS 1986b). The following year, Los Angeles passed a law requiring smoking policies in workplaces with five or more employees (ANR 1988a).

TABLE 20.—Regional variation in restrictiveness of State laws limiting smoking

Region[a]	Total States	Mean restrictiveness[b] in October 1988	States with laws[c] N	States with laws[c] (%)	Mean restrictiveness[b] of laws in effect October 1988	States with different degrees of restrictiveness[b] 1.00	0.75	0.50	0.25	0.00
Northeast	9	.861	9	(100)	.861	6	1	2	0	0
Midwest	12	.625	10	(83)	.750	3	4	3	0	2
West	13	.692	12	(92)	.750	3	6	3	0	1
South	17	.324	12	(71)	.458	1	2	3	6	5
Major tobacco producer	6	.125	3	(50)	.250	0	0	0	3	3
Other	11	.432	9	(82)	.528	1	2	3	3	2
Total	51	.583	43	(84)	.692	13	13	11	6	8

[a]Regions are defined by the Bureau of the Census
Northeast: CT, MA, ME, NH, NJ, NY, PA, RI, VT
Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE,OH, SD, WI
West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY
South: AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV
Major tobacco producers: GA, KY, NC, SC, TN, VA
[b]Index of restrictiveness (from US DHHS 1986b):
0.00 = None; no statewide restrictions.
0.25 = Nominal; State regulates smoking in one to three public places, excluding restaurants and private worksites.
0.50 = Basic; State regulates smoking in four or more public places, excluding restaurants and private worksites.
0.75 = Moderate; State regulates smoking in restaurants, but not private worksites.
1.00 = Extensive; State regulates smoking in private worksites.
[c]Difference in prevalence of laws, South versus all other: chi square (using Yates correction)=13.40, $p<0.005$.
SOURCE: BNA (1987), US DHHS (1986b), individual State laws.

As a result of this early action, California holds the distinction of having more cities, towns, and counties restricting smoking than any other State. As of April 1988, 125 California cities, towns, and counties had significant nonsmoker protection laws, including all California cities with populations greater than 250,000 and more than one-third of all other communities with populations greater than 25,000 (ANR 1988a). Smoking was restricted in private worksites in 117 California communities; these laws applied to nearly 15 million citizens, more than 55 percent of the State's population. Restaurant nonsmoking sections are required in 118 California communities.

A stringent restaurant law was passed in Beverly Hills in April 1987. It banned all smoking in restaurants except those in hotels or bars. Amid enforcement problems and restaurateurs' reports of losing business to neighboring communities with less stringent laws, the city subsequently amended the ordinance to permit smoking areas in restaurants with air filtration systems, as long as nonsmoking sections are at least 50 percent of seating capacity (ANR 1988a; Malnic 1988; New York Times 1987). This remains the only widely known example of a State or local ordinance that has been revised to become less stringent.

A total ban on smoking in restaurants has been adopted successfully by one city, Aspen, CO. In September 1985, Aspen passed a Clean Indoor Air Act that contained an even more stringent restaurant provision: a ban on smoking in all restaurants (Aspen 1985). Six months after the law passed, a survey of 30 restaurants revealed that 87 percent of managers favored the law; 77 percent reported no effect of the ordinance on their business, 10 percent said they lost business, and 13 percent were uncertain of the effect (Dunlop 1986).

Outside California, Massachusetts has the largest number of local smoking ordinances. As of June 1988, 56 cities and towns restricted smoking in restaurants and 9 communities restricted smoking in private workplaces. Since 1984, Massachusetts communities have been passing restaurant laws at the rate of over 10 per year, and there has been an increase in the minimum required size of nonsmoking sections (GASP 1988a,b).

Communities in more than 20 other States restrict smoking, including 6 of the 8 States without statewide restrictions. Two of the major tobacco-producing States, Virginia and South Carolina, each have several counties that restrict smoking. In Virginia, which has no statewide restrictions, Arlington, Fairfax, and Prince William Counties, as well as the city of Norfolk, restrict smoking in restaurants and other public places. In South Carolina, which has statewide limits only for school buses, smoking is restricted in government buildings in five counties. In 1987, the city of Greenville became the first in South Carolina to restrict smoking in private worksites and restaurants (Tobacco-Free Young America Project 1987).

Other States with several communities regulating smoking in public places or worksites are Texas, Colorado, Maryland, Ohio, Arizona, and New York. Among the major cities not already cited that restrict smoking in private worksites and various public places are New York, NY; Cleveland OH; Denver, CO; Kansas City, MO; Phoenix and Tucson, AZ; Pittsburgh, PA; Austin, Dallas, El Paso, and Houston, TX; and Seattle, WA (ANR 1988b).

The city ordinance affecting the largest number of people is the Clean Indoor Air Act that took effect in New York City on April 6, 1988. It applies to over 7 million people, almost 3 percent of the United States population, and bans or restricts smoking in a wide variety of public places. Restaurants seating more than 50 persons must designate at least half of their seating as nonsmoking, and employers with more than 15 employees must maintain a written smoking policy and provide, "to the extent reasonably practicable, smoke-free work areas for nonsmoking employees who sit in common work areas." Smoking is also prohibited in hallways, restrooms, and other shared areas at work (New York City Department of Health 1988).

Smoking Restrictions in Public Transportation Facilities

Buses and Trains

For interstate public transportation, prior Federal regulatory actions have been accompanied by more recent congressional legislation. In the 1970s, the Interstate Com-

merce Commission (ICC) and the Civil Aeronautics Board (CAB) issued smoking restrictions for buses and airliners, respectively. In 1971, the ICC issued regulations requiring that smoking on buses traveling interstate routes be confined to designated smoking sections. Upheld in a 1973 court case and amended in 1976, the current regulations require smoking sections to be at the rear of buses and to consist of no more than 30 percent of total seating capacity (49 CFR 1061, 1987). In 1971, the ICC also required that smoking on trains traveling on interstate routes be confined to designated areas (Public Law 91-518; 49 CFR 1124.1). The legislation mandating these regulations for trains was repealed in 1979.

More recently, congressional legislation passed in 1987 led indirectly to a ban on smoking on commuter rail lines serving New York City. The law would have withheld Federal funds to the New York Metropolitan Transportation Authority unless smoking was banned on the Long Island Railroad (LIRR) (101 Stat. 1329–382, 1987). In response, the Authority banned smoking, effective February 15, 1988, on all LIRR and Metro-North Commuter Railroad trains. The action affected 452,000 daily riders of these commuter lines, which connect New York City with Long Island and Westchester County, NY, and Connecticut. Railroad officials had previously favored a ban, but the Authority's board had rejected a total ban until the threatened loss of an estimated 539 million dollars in Federal funds (Schmitt 1988).

Commercial Airlines

Smoking on commercial airline flights has been the subject of longstanding Federal regulation and more recent congressional legislation. The CAB promulgated its first regulations in 1971 (14 CFR Part 252.2). These required that all commercial airline flights provide nonsmoking sections large enough to accommodate every passenger who desired to sit in them. In 1983, the CAB issued new regulations that banned smoking on flights of 2 hr or less; however, the CAB reversed its decision almost immediately, allegedly in response to outside pressure (Walsh and Gordon 1986).

Public pressure for a smoking ban on commercial airline flights continued to mount, however. In 1986, the National Academy of Sciences appointed a Committee on Airliner Cabin Air Quality to examine the issues. Their report recommended a ban on smoking on all commercial domestic airline flights, for several reasons: to increase the comfort of passengers and crew, to reduce potential health hazards of involuntary smoke exposure for the crew, to decrease the risk of fire caused by cigarettes, and to bring cabin air quality into line with established standards for indoor environments (NRC 1986a). That same year, the Adult Use of Tobacco Survey, which interviewed over 13,000 adults, found that nonsmoking sections were preferred by 82 percent of nonsmokers, 69 percent of former smokers, and even 14 percent of current smokers (CDC 1988).

In response to this evidence and growing pressure by the voluntary health organizations and nonsmokers' rights groups, Congress passed legislation in 1987 prohibiting smoking on all regularly scheduled commercial flights with scheduled flight times of 2 hr or less (Public Law 100-202). This includes approximately 80 percent of all domes-

tic flights. The ban also prohibited tampering with aircraft smoke detection devices and authorized fines of up to 2,000 dollars for violations. The law, which became effective on April 23, 1988, will expire in 1990 in the absence of further congressional action (101 Stat. 1329–382, 1987).

Recent legislation in California and Canada has created more comprehensive smoking restrictions on a wider range of transportation vehicles. As of January 1, 1988, California banned smoking on all intrastate commercial airplane, train, and bus trips. Several carriers, including Amtrak, American Airlines, and Alaska Airlines, ignored the law on the grounds that their operations are regulated by Federal rather than State laws (Washington Post 1988). However, when both airlines complied with the Federal inflight smoking ban in April 1988, they effectively complied with the California law. In June 1988, the Canadian Parliament acted to ban smoking on flights less than 2 hr. The law also limits smoking on federally regulated ships, trains, and buses to designated areas separated from the main seating (Burns 1988).

Opinion surveys document support for greater restrictions on smoking in airliners (see Chapter 4). In a survey of more than 33,000 airline passengers in 39 States and 89 airports, conducted by the American Association for Respiratory Care prior to the passage of congressional legislation, 64 percent supported a total ban on smoking in flight, including 74 percent of nonsmokers and 30 percent of smokers (Milligan 1987). In another survey, California's smoking ban on intrastate flights was supported by 85 percent of 614 passengers and 94 percent of 63 airline flight crew surveyed at San Francisco's airport (Journal of the American Medical Association 1988b).

Less is known about smoking restrictions in airports. Preliminary data from a survey by the Airport Operators Council International (AOCI) of its 180 U.S. members showed that 50 of 59 respondents had smoking restrictions of some type (AOCI 1988; Yenckel 1988). However, after the institution of the congressionally mandated ban during flights of 2 hr or less, there were anecdotal reports of increased smoking in airports, as smokers appeared to compensate for on-board restrictions (Yenckel 1988).

Smoking Restrictions in the Workplace

Government Worksites

Federal, State, and local governments have used a combination of regulatory and legislative means to address the smoking in their own facilities. As a result of recent Federal regulations, most Federal workers are covered by policies that restrict but do not ban smoking in the workplace. In 1986, the General Services Administration (GSA), which is responsible for one-third of all Federal buildings and provides office space for 890,000 Federal employees, revised its 1973 smoking policy. The current regulations, which became effective on February 6, 1987, prohibit smoking except in designated areas, specify areas where smoking is to be banned and where it may be permitted, but do not require that all working areas be smoke free. The intent of these regulations was to provide a reasonably smoke-free environment for workers and visitors in GSA-controlled buildings. Smoking is prohibited in auditoriums, class-

rooms, conference rooms, elevators, medical care facilities, libraries, and hazardous areas. Smoking is banned in general office spaces unless they are designated for smoking and configured to protect nonsmokers from involuntary exposure to smoke. The regulations do not specify how to determine if nonsmokers are protected from exposure to ETS in cases where smoking areas are designated. Corridors, lobbies, restrooms, and stairways are also nonsmoking areas unless designated otherwise (41 CFR 101–20, 1987; GSA 1986).

In consultation with employees, agency heads have the authority to decide which areas are designated nonsmoking or smoking as well as to establish more stringent guidelines (GSA 1986). Response by the various executive departments has varied. DHHS has adopted the most stringent requirements: a complete ban in all Department buildings effective February 25, 1988. Previously, the Indian Health Service had banned smoking within its 45 hospitals (CDC 1987b). Other departments have permitted sections of food service facilities, restrooms, or corridors to become designated smoking areas (BNA 1987).

The second major Federal regulatory effort addressed smoking by Armed Forces personnel. DOD previously had a worksite smoking policy, dating from 1977, which prohibited smoking in auditoriums, conference rooms, and classrooms and required nonsmoking areas in all cafeterias. In March 1986, DOD established a new policy that was a component of the antismoking portion of the DOD comprehensive health promotion and education program (US DOD 1986a; Chapter 6). Its purpose was to create an environment that discouraged tobacco use. Although each of the military services has adopted branch-specific regulations, the departmentwide policy stipulates that smoking is prohibited in auditoriums, conference rooms, classrooms, elevators, buses, and vans. Smoking is not permitted in common work areas shared by smokers and nonsmokers unless adequate space is available for nonsmokers and ventilation is adequate to provide them with a healthy environment. Smoking is permitted only in designated sections of those common work areas, as in restricted sections of eating facilities, medical facilities, and schools (US DOD 1986a). The DOD policy covers nearly 2.2 million military and 1.2 million civilian personnel worldwide (US DOD 1986b).

Servicewide surveys taken in 1987 suggest that the DOD antismoking campaign is affecting smoking behavior. Between 1985 and 1987, the smoking prevalence in the Army dropped from 52 to 41 percent, in the Navy from 49 to 44 percent, and in the Air Force from 39 to 31 percent. The Marine Corps' last survey in 1985 indicated a smoking rate of 43 percent (Kimble 1987). It is impossible to determine how much of this drop is attributable specifically to the new smoking restrictions, because many other antismoking activities occurred during this time, both in the military and in the wider community. In the 6-month period ending April 30, 1987, monthly tobacco product sales in military commissaries decreased by approximately 18 percent. The rate of decreased sales does not necessarily directly reflect the rate of decreased consumption, because of possible purchases in the civilian market. Nevertheless, it is another suggestion of a decrease in tobacco consumption by military personnel (US DOD 1987).

In December 1988, the Veterans Administration (VA) announced its intent to establish smoke-free environments in acute-care sections within the 172 medical centers and more than 230 outpatient clinics that are part of the VA health care system (VA 1988).

In addition to Federal actions, smoking restrictions in State and local government offices have been imposed by legislation and regulation. Laws in 31 States now restrict smoking at public worksites, and additional States have restricted smoking by executive branch action.